

App. No.: 10/072,056

### AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings of claims in the present application.

#### WHAT IS CLAIMED IS:

**Claim 1. (Currently Amended)** A radio communication system characterized by comprising a base station (3) ~~conforming to a desired radio communication node~~ transmitting radio signals having different waveform and a terminal station (2-1 to 2-n: n denotes a natural number) for making radio communications with said base station (3) ~~through the use of said radio communication node,~~

said base station including:

a compensation parameter generating section (33-6) for generating a compensation parameter needed for compensating for a possible error in detection of a received signal strength indicator, occurring in said terminal station (2-1 to 2-n) ~~stemming from a difference in transmission signal waveform to said terminal station (2-1);~~ and

a transmitting section (33-7) for transmitting said compensation parameter generated by said compensation parameter generating section (33-6), to said terminal station,

said terminal station including:

a received signal strength indicator detecting section (22-10) for detecting a received signal strength indicator of a transmission signal from said base station (3) through the use of a required amplifier (100); and

a received signal strength indicator compensating section (23-5) for compensating for, on the basis of said compensation parameter from said base station (3), the error in the received signal strength indicator detection in said received signal strength indicator detecting section (22-10), occurring according to the difference in transmission signal waveform ~~due to an input waveform dependent input-output characteristic of said amplifier (100).~~

**Claim 2. (Currently Amended)** A radio communication system according to claim 1, wherein ~~characterized in that~~, in a case in which said radio communication node is a code division multiple access communication node and a waveform of a multiplexed signal to be transmitted to

App. No.: 10/072,056

said terminal station (2-1) varies according to the number of multiplexes in said multiplexed signal,

said compensation parameter generating section (33-6) of said base station includes:

a multiplex number detecting section (33-4, 33-4A or 33-4B) for detecting information on the number of multiplexes in a transmission multiplexed signal to said terminal station;

a first correction memory section (33-5) for previously storing a correction quantity on a received signal strength indicator on the basis of a difference in number of multiplexes of said transmission multiplexed signal; and

a first memory control section (33-4, 33-4A or 33-4B) for reading out, from said first correction memory section (33-5), a correction quantity corresponding to said information on the number of multiplexes detected by said multiplex number detecting section as said compensation parameter for said terminal station, and

said received signal strength indicator compensating section (23-5) of said terminal station (2-1) includes:

a correction quantity receiving section (23-2a) for receiving said correction quantity from said base station; and

a first detected signal strength indicator correcting section (23-4) for correcting said received signal strength indicator, detected by said received signal strength indicator detecting section, according to said correction quantity received by said correction quantity receiving section.

**Claim 3. (Currently Amended)** A radio communication system according to claim 1, wherein ~~characterized in that~~, in a case in which said radio communication node is a code division multiple access communication node and a waveform of a multiplexed signal to be transmitted to said terminal station varies according to the number of multiplexes in said multiplexed signal,

said compensation parameter generating section (33-6) of said base station (3) includes:

a multiplex number detecting section (33-4, 33-4A or 33-4B) for detecting information on the number of multiplexes of a transmission multiplexed signal to said terminal station (2-i) as a compensation parameter for said terminal station (2-i), and

**App. No.: 10/072,056**

said received signal strength indicator compensating section (23-5) of said terminal station (2-i) includes:

a multiplex number receiving section (232e) for receiving said information on the number of multiplexes from said base station;

a second correction memory section (23-6) for previously storing a correction quantity on a received signal strength indicator on the basis of a difference in number of multiplexes in said transmission signal;

a second memory control section (232e) for reading out a correction quantity corresponding to said information on the number of multiplexes, received by said multiplex number receiving section (232e), from said second correction memory section (23-6); and

a second detected signal strength indicator correcting section (23-4) for correcting said received signal strength indicator, detected by said received signal strength indicator detecting section, according to said correction quantity read out by said second memory control section (232e).

**Claim 4. (Currently Amended)** A radio-communication system according to claim 1, wherein characterized in that, in a case in which said radio communication node is a code division multiple access communication node and a waveform of a multiplexed signal to be transmitted to said terminal station (2-i) varies according to the number of multiplexes in said multiplexed signal,

said compensation parameter generating section (33-6) of said base station (3) includes:

a multiplex number detecting section (33-4, 33-4A or 33-4B) for detecting information on the number of multiplexes of a transmission multiplexed signal to said terminal station (2-1) as said compensation parameter, and

said received signal strength indicator compensating section (23-5) of said terminal station (2-i) includes:

a multiplex number receiving section (232e) for receiving said information on the number of multiplexes from said base station (3); and

a third detected signal strength indicator correcting section (23-4') for correcting a received signal strength indicator detected by said received signal strength indicator detecting

App. No.: 10/072,056

section (22-10) on the basis of said information on the number of multiplexes received by said multiplex number receiving section (232c) through the use of a predetermined arithmetic operation.

**Claim 5. (Currently Amended)** A radio communication system according to claim 1, wherein ~~characterized in that~~, in a case in which each of said base station (3) and said terminal station (2-i) conforms to a plurality of types of modulation modes and a waveform of said transmission signal varies according to said modulation modes,

said compensation parameter generating section (33-6) of said base station (3) is designed to generate information on a modulation mode for said transmission signal as said compensation parameter, and

said received signal strength ~~indicator~~ compensating section (23-5) of said terminal station (2-i) is designed to correct an error in detection of a received signal strength ~~indicator~~, which occurs according to a difference in transmission signal modulation mode due to an input-waveform-dependent input-output characteristic of said amplifier (100), on the basis of said information on transmission signal modulation mode from said base station.

**Claim 6. (Currently Amended)** A received signal strength ~~indicator~~ compensating method for use in a radio communication system comprising a base station (3) ~~conforming to a desired radio communication mode~~ transmitting radio signals having different waveform and a terminal station (2-i) for making radio communications with said base station (3) through the use of said radio communication mode, the method ~~characterized by~~ comprising:

broadcasting a compensation parameter needed for compensating for a possible error in detection of a received signal strength ~~indicator~~, occurring in said terminal station (2-i) stemming from a difference in waveform of a transmission signal from said base station (3) to said terminal station (2-i); and

in said terminal station (2-i), detecting A received signal strength ~~indicator~~ of said transmission signal through the use of a required amplifier (100), and compensating for, on the basis of said compensation parameter broadcasted from said base station (3), the error in the received signal strength ~~indicator~~ detection occurring according to the difference in transmission

App. No.: 10/072,056

signal waveform ~~due to an input waveform dependent input-output characteristic of said amplifier (100).~~

**Claim 7. (Currently Amended)** A base station for use in a radio communication system ~~(1)~~, said base station ~~(3) conforming to a desired radio communication node and making radio communications with a terminal station (2-i) through the use of said radio communication node by radio signals having different waveform, characterized by~~ comprising:

a compensation parameter generating section ~~(33-6)~~ for generating a compensation parameter needed for compensating for a possible error in detection of a received signal strength indicator, occurring in said terminal station stemming from a difference in transmission signal waveform to said terminal station ~~(2-1)~~; and

a transmitting section ~~(33-7)~~ for transmitting said compensation parameter generated by said compensation parameter generating section ~~(33-6)~~, to said terminal station.

**Claim 8. (Currently Amended )** A base station for use in a radio communication system according to claim 7, ~~wherein characterized in that~~, in a case in which said radio communication method is a code division multiple access communication method and a waveform of a multiplexed-signal to be transmitted to said terminal station ~~(2-i)~~ varies according to the number of multiplexes in said multiplexed signal, said compensation parameter generating section ~~(33-6)~~ includes:

a multiplex number detecting section ~~(33-4, 33-4A or 33-4B)~~ for detecting information on the number of multiplexes in a transmission multiplexed signal to said terminal station;

a first correction memory section ~~(33-5)~~ for previously storing a correction quantity on a received signal strength indicator on the basis of a difference in number of multiplexes of said transmission multiplexed signal; and

a first memory control section ~~(33-4, 33-4A or 33-4B)~~ for reading out, from said first correction memory section ~~(33-5)~~, a correction quantity corresponding to said information on the number of multiplexes detected by said multiplex number detecting section ~~(33-4, 33-4A or 33-4B)~~ as said compensation parameter for said terminal station ~~(2-i)~~.

**App. No.: 10/072,056**

**Claim 9. (Currently Amended)** A base station for use in a radio communication system according to claim 7, wherein ~~characterized in that~~, in a case in which said radio communication node is a code division multiple access communication node and a waveform of a multiplexed signal to be transmitted to said terminal station (2-i) varies according to the number of multiplexes in said multiplexed signal, said compensation parameter generating section (33-6) includes:

a multiplex number detecting section (33-4, 33-4A or 33-4B) for detecting information on the number of multiplexes of a transmission multiplexed signal to said terminal station (2-i) as a compensation parameter for said terminal station (2-i).

**Claim 10. (Currently Amended)** A base station for use in a radio communication system according to claim 7, wherein ~~characterized in that~~, in a case in which said radio communication node is a code division multiple access communication node and a waveform of a multiplexed signal to be transmitted to said terminal station (2-i) varies according to the number of multiplexes in said multiplexed signal, said compensation parameter generating section (33-6) includes:

a multiplex number detecting section (33-4, 33-4A or 33-4B) for detecting information on the number of multiplexes of a transmission multiplexed signal to said terminal station (2-i) as a compensation parameter for said terminal station (2-i).

**Claim 11. (Currently Amended)** A base station for use in a radio communication system according to any one of claims 8 to 10, wherein ~~characterized in that~~ a plurality of transmission data generating sections (331-i) are provided to generate transmission data to be multiplexed as said transmission multiplexed signal, and

said multiplex number detecting section (33-4) includes:

an enable signal counting section (337) for counting the number of enable signals for said transmission --data generating- sections (331-i) to detect said information on the number of multiplexes.

**App. No.: 10/072,056**

**Claim 12. (Original)** A base station for use in a radio communication system according to claim 11, wherein ~~characterized in that~~ said plurality of transmission data generating sections (331-i) are separated into a plurality of groups,

said enable signal counting (337) is provided for each of said groups to count the number of enable signals in units of said groups, and

an adding section (338) is provided to add up the count results in said enable signal counting sections for output said information on the number of multiplexes.

**Claim 13. (Currently Amended)** A base station for use in a radio communication system according to claim 11, wherein ~~characterized in that~~ said enable signal counting section (337) uses each of said enable signals for said plurality of transmission data generating sections (331-i) as a read address signal, and

a multiplex number detection memory section (340) is provided which previously stores said information on the number of multiplexes in an address area corresponding to said read address signal.

**Claim 14. (Currently Amended)** A base station for use in a radio communication system according to claim 7, wherein ~~characterized in that~~, in a case in which each of said base station (3) and said terminal station (2-i) conforms to a plurality of types of modulation modes and a waveform of said transmission signal varies according to said modulation modes,

said compensation parameter generating section (33-6) is designed to generate information on a modulation mode for said transmission signal as said compensation parameter.

**Claim 15. (Currently Amended)** A terminal station for use in a radio communication system (1), said terminal station (2-i) ~~conforming to a desired radio communication node and making radio communications with a base station (3) through the use of said radio communication node,~~ characterized by comprising:

a received signal strength indicator detecting section (22-10) for detecting a received signal strength indicator of a transmission signal from said base station (3) through the use of a required amplifier (100); and

**App. No.: 10/072,056**

a received signal strength ~~indicator~~ compensating section (23-5) for compensating for, on the basis of a compensation parameter needed for compensation for a possible error in detection of a received signal strength ~~indicator~~ occurring due to a difference in waveform of said transmission signal and generated in said base station (3) and transmitted therefrom, the error in the received signal strength ~~indicator~~ detection in said received signal strength ~~indicator~~ detecting section, occurring according to the difference in the transmission signal waveform ~~due to an input waveform dependent input-output characteristic, of said amplifier (100).~~

**Claim 16. (Currently Amended)** A terminal station for use in a radio communication system according to claim 15, wherein ~~characterized in that~~, in a case in which said radio communication node is a code division multiple access communication node and a waveform of a multiplexed signal to be transmitted from said base station (3) varies according to the number of multiplexes in said multiplexed signal, with a received signal strength ~~indicator~~ correction quantity to be taken according to a difference in the number of multiplexes in said transmission multiplexed signal being transmitted as said compensation parameter from said base station (3),

said received signal strength ~~indicator~~ compensating section (23-5) includes:

a correction quantity receiving section (232a) for receiving said correction quantity from said base station; and

a first detected signal strength ~~indicator~~ correcting section (23-4) for correcting said received signal strength ~~indicator~~, detected by said received signal strength ~~indicator~~ detecting section (22-10), according to said correction quantity received by said correction quantity receiving section (232a).

**Claim 17. (Currently Amended)** A terminal station for use in a radio communication system according to claim 15, wherein ~~characterized in that~~, in a case in which said radio communication node is a code division multiple access communication node and a waveform of a multiplexed signal to be transmitted from said base station (3) varies according to the number of multiplexes in said multiplexed signal, with information on the number of multiplexes in said transmission multiplexed signal being transmitted as said compensation parameter from said base station (3),

said received signal strength ~~indicator~~ compensating section (23-5) includes:



App. No.: 10/072,056

a multiplex number receiving section (232e) for receiving said information on the number of multiplexes from said base station;

a second correction memory section (23-6) for previously storing a correction quantity on a received signal strength indicator on the basis of a difference in number of multiplexes in said transmission signal;

a second memory control section (232e) for reading out a correction quantity corresponding to said information on the number of multiplexes, received by said multiplex number receiving section (232e), from said second correction memory section (23-6); and

a second detected signal strength indicator correcting section (23-4) for correcting said received signal strength indicator, detected by said received signal strength indicator detecting section (22-10), according to said correction quantity read out by said second memory control section (232e).

**Claim 18. (Currently Amended)** A terminal station for use in a radio communication system according to claim 15, wherein characterized in that, in a case in which said radio communication node is a code division multiple access communication node and a waveform of a multiplexed signal to be transmitted from said base station (3) varies according to the number of multiplexes in said multiplexed signal, with information on the number of multiplexes in said transmission multiplexed signal being transmitted as said compensation parameter from said base station (3),

said received signal strength indicator compensating section (33-6) includes:

a multiplex number receiving section (232e) for receiving said information on the number of multiplexes from said base station (3); and

a third detected signal strength indicator correcting section (23-4') for correcting a received signal strength indicator detected by said received signal strength indicator detecting section (22-10) on the basis of said information on the number of multiplexes received by said multiplex number receiving section (232e) through the use of a predetermined arithmetic operation.

**Claim 19. (Currently Amended)** A terminal station for use in a radio communication system according to claim 15, wherein characterized in that, in a case in which said base station (3')

**App. No.: 10/072,056**

conforms to a plurality of types of modulation modes and a waveform of said transmission signal varies according to said modulation modes, with said base station (3<sup>1</sup>) being made to generate information on a modulation mode for said transmission signal as said compensation parameter,

said received signal strength ~~indieator~~ compensating section (23-5) is made to compensate for an error in received signal strength ~~indieator~~ detection occurring due to a difference in modulation mode for said transmission signal stemming from an input-waveform-dependent input-output characteristic of said logarithmic amplifier (100), on the basis of said information on the modulation mode for said transmission signal from said base station (3<sup>1</sup>).